

ABSTRACT OF THE DISCLOSURE

An apparatus and method that compensates for pre-distortion of a power amplifier includes a digital pre-distorter controller which generates a power/phase compensation coefficient, a temperature compensation coefficient and a frequency compensation coefficient, a look-up table which stores the coefficients, a pre-distorter kernel which pre-compensates an input signal based on the temperature compensation coefficient from the look-up table, and a correction filter which compensates an output signal of the kernel based on the frequency compensation coefficient from the look-up table. If desired, an input signal may be pre-distorted based on only one of the temperature and frequency compensation coefficients along with the power/phase compensation coefficient. Nonlinear characteristics of the power amplifier are accurately checked and distortion due to the nonlinear characteristics are compensated for.